Final

Site-Specific Field Sampling Plan Addendums to the QST Environmental, Inc. Final Site Investigation Work Plan for the Boiler Plant No. 4, Parcel 101(7); Former Incinerators, Parcel 96(7); and Ground Scar South of Building 3134, Parcel 153(7)
and
QST Ground Scar and Boiler Plant Sites Site-Specific Safety and Health Plan Addendum

Fort McClellan
Calhoun County, Alabama

Delivery Order CK08
Contract No. DACA21-96-D-0018
IT Project No. 783149

September 1999

Site-Specific Field Sampling Plan Addendums

Boiler Plant No. 4, Parcel 101(7)

Former Incinerators, Parcel 96(7)

Ground Scar South of Building 3134, Parcel 153(7)

Final
Boiler Plant No. 4, Parcel 101(7)
Site-Specific Field Sampling Plan Addendum to the QST Environmental, Inc. Final Site Investigation Work Plan

Fort McClellan
Calhoun County, Alabama

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Delivery Order CK08
Contract No. DACA21-96-D-0018
IT Project No. 783149

September 1999

Revision 1

Table of Contents

List of Tables

List of Figures

List of Acronyms

ASTM	American Standard for Testing and Materials
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
bgs	below ground surface
BRAC	Base Realignment and Closure
FTMC	Fort McClellan
IT	IT Corporation
PSSC	potential site-specific chemicals
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
QST	QST Environmental Inc.
SAP	installation-wide sampling and analysis plan
SFSP	site-specific field sampling plan
SI	site investigation
SSHP	site-specific safety and health plan
USACE	U.S. Army Corps of Engineers
WP	installation-wide work plan

1.0 Introduction

The U.S. Army is conducting studies of the environmental impact of suspected contaminants at Fort McClellan (FTMC) in Calhoun County, Alabama, under the management of the U.S. Army Corps of Engineers (USACE)-Mobile District. The USACE has contracted IT Corporation (IT) to provide environmental services for the completion of the site investigation (SI) at the Boiler Plant No. 4, Parcel 101(7) under Delivery Order CK08, Contract No. DACA21-96-D-0018 (USACE, 1999). The SI for the Boiler Plant No.4 at FTMC was initiated by QST Environmental Inc. (QST). A draft SI report was submitted to the Base Realignment and Closure (BRAC) Cleanup Team (BCT) in January 1999. Based on the results of the draft SI, the BCT requested that additional work be conducted. IT is conducting the additional work in order to complete the SI work initiated by QST. This addendum only addresses the additional work to be completed by IT. The site description, samples collected, and sample results for the SI work conducted by QST is presented in the QST Draft Site Investigation Report, January 1999.

This site-specific field sampling plan (SFSP) addendum to the QST Final Site Investigation Work Plan, March 1998, has been prepared to provide technical guidance to complete sample collection and analysis in support of the SI at the Boiler Plant No. 4, Parcel 101(7). This addendum will be used in conjunction with the site-specific safety and health plan (SSHP) attachment developed by IT Corporation (IT) for the QST Ground Scar and Boiler Plant Sites under Task Order CK08.

Specifically, IT will collect five groundwater samples from existing monitoring wells at this site. Chemical analyses of the samples collected during the field program will include volatile organic compounds, semivolatile organic compounds, and metals. Results from these analyses will be combined with those results previously collected by QST and compared with site-specific screening levels specified in the IT installation-wide work plan (WP) (IT, 1998b) and regulatory agency guidelines.

This SI addendum to the QST SI work plan for the Boiler Plant No. 4 will be used in conjunction with the SSHP, the WP, and the installation-wide sampling and analysis plan (SAP) (IT, 1998a). The SAP includes the installation-wide safety and health plan, waste management plan, and quality assurance plan. Site-specific hazard analyses are included in the SSHP.

1.1 Site Description

The Boiler Plant No. 4, Parcel 101(7), has been described in Section 2.0 of the QST Final SI Work Plan, March 1998.

1.2 Scope of Work

The scope of work for activities associated with this addendum to the QST Final Site Investigation Work Plan, March 1998 at the Boiler Plant No. 4, Parcel 101(7), as specified by the statement of work (USACE, 1999), includes the following tasks:

- Develop the SFSP addendum attachment to the QST Site Investigation Work Plan.
- Develop the SSHP attachment for the QST Ground Scars and Boiler Plant Site.
- Collect groundwater samples from five existing monitoring wells, complete the investigation as to whether potential site-specific chemicals (PSSC) are present at the Boiler Plant No. 4, Parcel 101(7) site and provide data useful for supporting any future planned corrective measures and closure activities.
- Samples will be analyzed for parameters that include volatile organic compounds, semivolatile organic compounds, and metals.

At completion of the field activities and sample analyses, draft and final SI summary reports will be prepared to evaluate the absence or presence of PSSCs at this site using both the data collected by QST and IT, and to recommend further actions, if appropriate.

2.0 Field Activities

2.1 Environmental Sampling

The environmental sampling program at the Boiler Plant No. 4 site includes the collection of groundwater samples for chemical analyses. These samples will be collected and analyzed to provide additional data for characterizing the site to determine the environmental condition of the site and any further action to be conducted at the site.

2.2 Groundwater Sampling

Groundwater samples will be collected from the five existing monitoring wells at the Boiler Plant No. 4.

2.2.1 Sample Locations and Rationale

Groundwater samples will be collected from the five existing monitoring well locations shown on Figure 2-1. The groundwater sample designations, depths, and required QA/QC sample quantities are listed in Table 2-1.

2.2.2 Sample Collection

Prior to sampling monitoring wells, static water levels will be measured from each of the five monitoring wells installed at the site to define the groundwater flow in the residuum aquifer. Water level measurements will be performed as outlined in Section 4.18 of the SAP (IT, 1998a). Groundwater samples will be collected in accordance with the procedures outlined in Section 4.9.1.4 of the SAP.

Sample documentation and chain of custody will be recorded as specified in Section 4.13 of the SAP. Sample containers, sample volumes, preservatives, and holding times for the analyses required in this addendum are listed in Section 5.0, Table 5-1 of the QAP (IT, 1998a). The samples will be analyzed for the parameters listed in Table 2-2 of this addendum.

3.0 References

IT Corporation (IT), 1998a, ***Final Installation-Wide Sampling and Analysis Plan, Fort McClellan, Calhoun County, Alabama***, August.

IT Corporation (IT), 1998b, ***Final Installation-Wide Work Plan, Fort McClellan, Calhoun County, Alabama***, August

U.S. Army Corps of Engineers (USACE), 1999, ***Statement of Work for Task Order CK08, Underground Storage Tank (UST) Closure Assessments, Ground Scars/Boiler Plants Site Investigations at Fort McClellan, Alabama,*** April.

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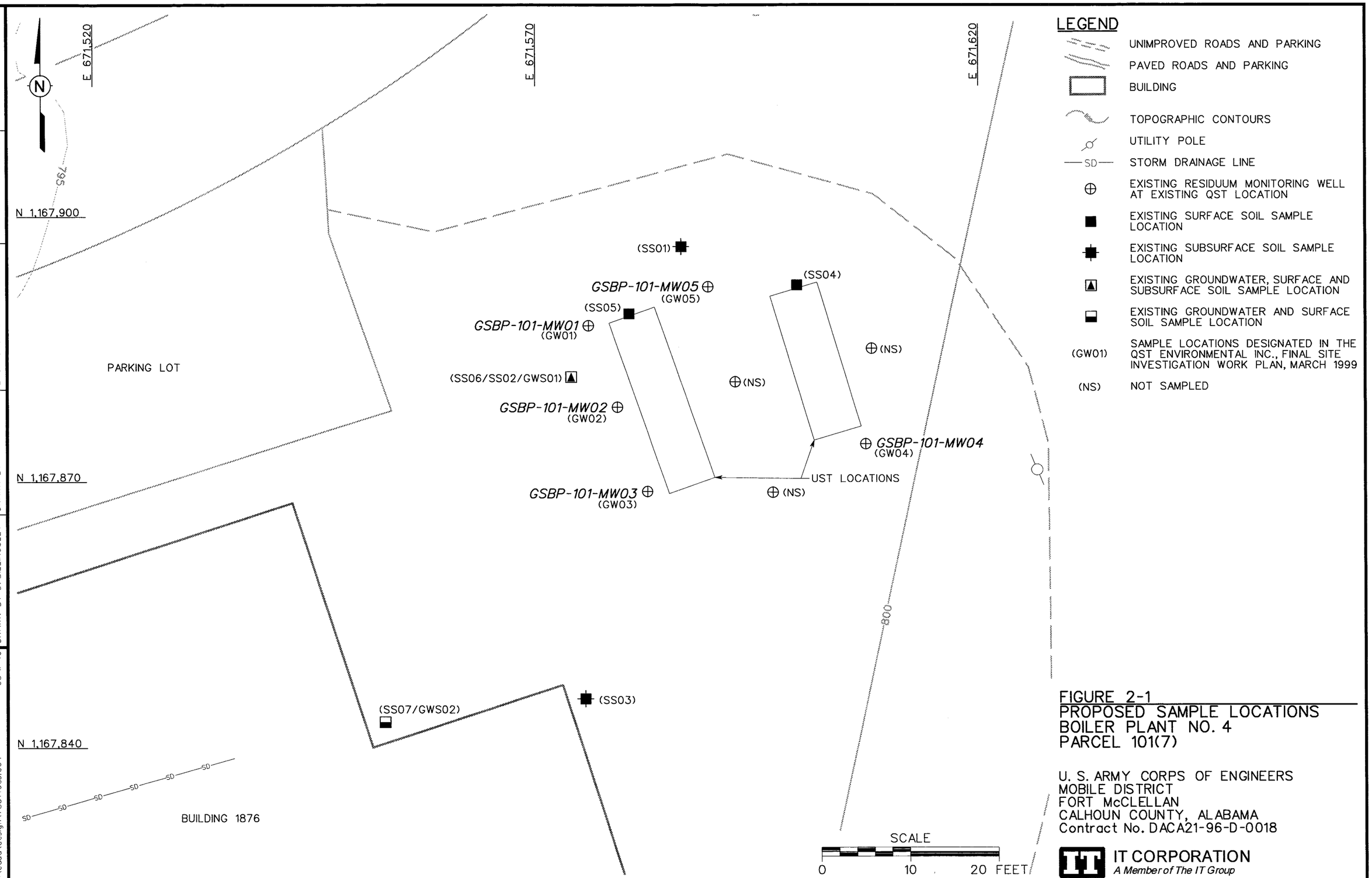

LEGEND

- UNIMPROVED ROADS AND PARKING
- PAVED ROADS AND PARKING
- BUILDING
- TOPOGRAPHIC CONTOURS
- UTILITY POLE
- SD — STORM DRAINAGE LINE
- ⊕ EXISTING RESIDUUM MONITORING WELL AT EXISTING QST LOCATION
- ■ EXISTING SURFACE SOIL SAMPLE LOCATION
- ■ EXISTING SUBSURFACE SOIL SAMPLE LOCATION
- ▲ EXISTING GROUNDWATER, SURFACE AND SUBSURFACE SOIL SAMPLE LOCATION
- ▬ EXISTING GROUNDWATER AND SURFACE SOIL SAMPLE LOCATION
- (GW01) SAMPLE LOCATIONS DESIGNATED IN THE QST ENVIRONMENTAL INC., FINAL SITE INVESTIGATION WORK PLAN, MARCH 1999
- (NS) NOT SAMPLED

FIGURE 2-1
PROPOSED SAMPLE LOCATIONS
BOILER PLANT NO. 4
PARCEL 101(7)

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

IT CORPORATION
A Member of The IT Group

Table 2-1

Groundwater Sample Designations and QA/QC Sample Quantities
Boiler Plant No. 4, Parcel 101(7)
Fort McClellan, Calhoun County, Alabama

Sample Location	QST Sample Location	Sample Designation	Sample Matrix	Sample Depth (ft)	QA/QC Samples			Analytical Suite
					Field Duplicates	Field Splits	MS/MSD	
GSBP-101-MW01	GW01	GSBP-101-MW01-GW-BA3001-REG	Groundwater	a	GSBP-101-MW01-GW-BA3002-FD	GSBP-101-MW01-GW-BA3003-FS		TAL Metals
GSBP-101-MW02	GW02	GSBP-101-MW02-GW-BA3004-REG	Groundwater	a			GSBP-101-MW02-GW-BA3004-MS GSBP-101-MW02-GW-BA3004-MSD	TCL VOCs, TCL SVOCs, TAL Metals
GSBP-101-MW03	GW03	GSBP-101-MW03-GW-BA3005-REG	Groundwater	a				TAL Metals
GSBP-101-MW04	GW04	GSBP-101-MW04-GW-BA3006-REG	Groundwater	a				TAL Metals
GSBP-101-MW05	GW05	GSBP-101-MW05-GW-BA3007-REG	Groundwater	a				TAL Metals

[a]Sample depth will depend on where sufficient first water is encountered to collect a water sample.

FD - Field duplicate.
FS - Field split.
MS/MSD - Matrix spike/matrix spike duplicate.
REG - Field sample.
QA/QC - Quality assurance/quality control.
TAL - Target analyte list.
TCL - Target compound list.
VOC - Volatile organic compound.
SVOC - Semivolatile organic compound.

Table 2-2

Analytical Samples
Site Investigation
Boiler Plant No. 4, Parcel 101(7)
Fort McClellan, Calhoun County, Alabama

Parameters	Analysis Method	Sample Matrix	TAT Needed	Field Samples: No. of Sample Points	Field Samples: No. of Events	Field Samples: No. of Field Samples	QA/QC Samples [a]: Field Dups (10%)	QA/QC Samples [a]: Splits w/ QA Lab (5%)	QA/QC Samples [a]: MS/MSD (5%)	QA/QC Samples [a]: Trip Blank (1/ship)	QA/QC Samples [a]: Eq. Rinse (1/wk/matrix)	Quanterra: Total No. Analysis	QA Lab: Total No. Analysis
Boiler Plant No. 4: 2 water matrix samples (2 groundwater samples)													
TCL VOCs	8260B	water	normal	1	1	1	1	1	1	1	1	6	1
TCL SVOCs	8270C	water	normal	1	1	1	1	1	1		1	5	1
Tot TAL Metals	6010B/7000	water	normal	5	1	5	1	1	1		1	9	1
			Boiler Plant No. 4 Subtotal:			7	3	3	3	1	3	20	3

[a] Field duplicate, QA split, and MS/MSD samples were calculated as a percentage of the field samples collected per site and were rounded to the nearest whole number. Trip blank samples will be collected in association with water matrix samples for VOC analysis only. Assumed four field samples per day to estimate trip blanks. Equipment blanks will be collected once per event whenever sampling equipment is field decontaminated and re-used. They will be repeated weekly for sampling events that are anticipated to last more than 1 week. Assumed 20 field samples will be collected per week to estimate number of equipment blanks.

Ship samples to:

Quanterra Environmental Services
5815 Middlebrook Pike
Knoxville, Tennessee 37921
Attn: John Reynolds
Tel: 423-588-6401
Fax: 423-584-4315

USACE Laboratory split samples are shipped to:

U.S. Army Engineer District, Savannah
Environmental & Materials District
Attn: Sample Receiving
200 North Cobb Parkway
Building 400, Suite 404
Marietta, Georgia 30062
Tel: 678-354-0310

QA/QC - Quality assurance/quality control.
MS/MSD - Matrix spike/matrix spike duplicate.
TAL - Target analyte list.
TCL - Target compound list.
VOC - Volatile organic compound.
SVOC - Semivolatile organic compound.